

CLAIMS:

1. A receiving method for the contactless reception of identification information (I1, I2), which identification information I1, I2) is stored in a data carrier (3, 3') which can be transferred from the data carrier (3, 3') in a contactless manner in the form of information units (IU, IU') to a communication device (2) and can be received with the communication device (2), said receiving method having the steps presented below, namely reception of an information unit (RIU) and detection that the received information unit (RIU) represents a collision of two different information units (IU, IU') occurring essentially simultaneously, and of which two different information units (IU, IU') the first information unit (IU) originates from a first data carrier (3) and the second information unit (IU') originates from a second data carrier (3'), and replacing the received information unit (RIU) with a first replacement information unit (RIU1) established by the communication device (2), which replacement information unit (RIU) is used instead of the information unit (RIU) representing the collision as the information unit (IU) that originates from the first data carrier (3), and delivery of the first replacement information unit (RIU1) in a contactless manner.
2. A receiving method according to claim 1, wherein additionally each information unit (RIU) received at communication device (2) prior to collision detection is buffered as the information unit (IU') that originates from the second data carrier (3').
3. A receiving method according to claim 2, wherein the previously established first replacement information unit (RIU1) is replaced with a second replacement information unit (RIU2) differing from it, which second replacement unit (RIU2) is used instead of the information unit (RIU) representing the collision, as the information unit (IU') that originates from the second data carrier (3').
4. A receiving method according to claim 3, wherein, following complete presence of all information units (IU) that originate from the first data carrier (3), a continue command is generated and is delivered in a contactless manner, by means of which delivery of the information units (IU') of the identification information (I2) continues at the second

data carrier (3') with the information unit (IU') coming after the information unit (IU) that previously caused collision detection.

5. A method of delivery for the contactless delivery of identification information (I1, I2), which identification information (I1, I2) is stored in a data carrier (3, 3') and can be transmitted in a contactless manner in the form of information units (IU, IU') from the data carrier (3, 3') to a communication device (2), said method of delivery having the steps listed below, namely delivery of an information unit (IU, IU') and checking whether, after delivery of the information unit (IU, IU'), a first replacement information unit (RIU1) established by the communication device (2) can be received from the communication device (2), and continuation of delivery of the identification information (I1, I2) with the information unit (IU, IU') following the information unit (IU, IU') previously transmitted to the communication device (2), if either no established first replacement information unit (RIU1) is received from the communication device (2) or a first replacement information unit (RIU1) established by the communication device (2) is received and the received established first replacement information unit (RIU1) is identical with the information unit (IU, IU') previously transmitted to the communication device (2).

6. A method of delivery according to claim 5, wherein the delivery of the identification information (I1, I2) is interrupted if the established first replacement information unit (RIU1) is received from the communication device (2) and it is established that the received first replacement information unit (RIU1) is not identical with the information unit (IU, IU') previously sent to the communication device (2) and wherein at least the position of the information unit (IU, IU') following the information unit (IU, IU') sent prior to reception of the first replacement information unit (RIU1) is memorized.

7. A method of delivery according to claim 6, wherein, after reception of a continue command from the communication device, delivery of the information units (IU, IU') of the identification information (I1, I2) continues with the information unit (IU, IU') that corresponds to the memorized position.

8. An anti-collision method for managing a collision of information units (IU, IU'), said information units (IU, IU') being sent in each case from one data carrier (3, 3') to a communication device (2) and in which collision the information unit (RIU1) received at the

communication device (2) represents an essentially simultaneous occurrence of the different information units (IU, IU'), and of which different information units (IU, IU') the one information unit (IU) originates from a first data carrier (3) and the other information unit (IU') originates from a second data carrier (3'), wherein the anti-collision method comprises a receiving method according to one of the claims 1 to 4 and a method of delivery according to one of the claims 5 to 7.

9. A communication device circuit (4) for a communication device (2), said communication device (2) being designed for contactless communication with a data carrier (3, 3'), in which data carrier (3, 3') identification information (I1, I2) is stored, which can be received from the data carrier (3, 3') in a contactless manner in the form of information units (IU, IU'), wherein first receiving means (19) are provided, which are designed for the contactless reception of an information unit (RIU), and wherein collision detection means (25) are provided, which are designed for detecting that the received information unit (RIU) represents a collision of two different information units (IU, IU') occurring essentially simultaneously, and of which two different information units (IU, IU') the one information unit (IU) originates from a first data carrier (3) and the other information unit (IU') originates from a second data carrier (3'), and wherein replacing means (26) are provided, which are designed for replacing the received information unit (RIU) with a first replacement information unit (RIU1) established by the communication device (2), said first replacement information unit (RIU1) instead of the information unit (RIU) representing the collision, serving as the information unit (IU) that originates from the first data carrier (3), and wherein delivering means (11) are provided, which are designed for the contactless delivery of the established first replacement information unit (RIU1).

10. A communication device circuit (4) according to claim 9, wherein information unit buffer means (28) are provided, which are designed for buffering each information unit (RIU) receivable at the communication device (2) prior to collision detection, as an information unit (IU') originating from the second data carrier (3').

11. A communication device circuit (4) according to claim 10, wherein the replacing means (26) are designed for the repeat replacement of the previously established first replacement information unit (RIU1) with a second replacement information unit (RIU2) differing from it, which second replacement information unit (RIU2) is used instead of the

information unit (RIU) representing the collision, as the information unit (IU') that originates from the second data carrier (3').

12. A communication device circuit (4) according to claim 11, wherein continue
5 command generating means (12) are provided, which are designed for generating a continue command, said continue command being deliverable with the assistance of the first delivering means (11), and said continue command effecting continuation of delivery of the information units (IU') of the identification information (I2) at the second data carrier (3') with the information unit (IU') that comes after the information unit (IU'), which previously
10 caused the collision detection.

13. A communication device (2) with a communication device circuit (4) according to one of the claims 9 to 12.

14. A data carrier circuit (29, 29') for a data carrier (3, 3'), said data carrier (3, 3') being designed for contactless communication with a communication device (2) in which data carrier (3, 3') identification information (I1, I2) is stored, which can be transferred from the data carrier (3, 3') in a contactless manner in the form of information units (IU, IU') to the communication device (2), wherein second delivering means (42, 42') are provided, which
20 second delivering means (42, 42') are designed for the delivery of an information unit (IU, IU') in a contactless manner, and wherein checking means (46, 46') are provided, which checking means (46, 46') are designed for checking whether a first replacement information unit (RIU1) established by the communication device (2) after delivery of the information unit (IU, IU') can be received from the communication device (2), and wherein the second
25 delivering means (42, 42') are designed for continuing the delivery of the identification information (I1, I2) with the information unit (IU, IU') that comes after the information unit (IU, IU') previously sent to the communication device (2), if it is established in the checking means (46, 46') that either no established first replacement information unit (RIU1) is received from the communication device (2) or a first replacement information unit (RIU1)
30 established by the communication device (2) is received and the received established first replacement information unit (RIU1) is identical with the information unit (IU, IU') previously sent to the communication device (2).

15. A data carrier circuit (29, 29') according to claim 14, wherein the second delivering means (42, 42') are designed for interrupting the delivery of the identification information (I1, I2) if it is established in the checking means (46, 46') that the established first replacement information unit (RIU1) received from the communication device (2) is not identical with the information unit (IU, IU') previously sent to the communication device (2), and wherein the second delivering means (42, 42') have position storing means (51, 51'), by which at least the position of the information unit (IU, IU') coming after the information unit (IU, IU') delivered prior to reception of the established first replacement information unit (RIU1) can be memorized.

16. A data carrier circuit (29, 29') according to claim 15, wherein second receiving means (37, 37') are designed for receiving and detecting a continue command, which continue command can be received in a contactless manner from the communication device (2), and wherein the second delivering means (42, 42') are designed for continuing the delivery of the information units (IU, IU') of the identification information (I1, I2) with the information unit (IU, IU') that corresponds to the flagged position, if reception of the continue command is detected at the receiving means (37, 37').

17. A data carrier (3, 3') with a data carrier circuit (29, 29') according to any one of the claims 14 to 16.

18. A communication system (1) for contactless communication, wherein a communication device (2), which has a communication device circuit (4) according to one of the claims 9 to 11, is provided and wherein at least one data carrier (3, 3'), which has a data carrier circuit (29, 29') according to any one of the claims 14 to 16, is provided.